IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	John Zimmerman, *et al.*
Application No.	:	09/990,830
Filing Date	:	November 9, 2001
For	:	Systems for Monitoring Broadcast Content and Generating Notification Signals as a Function of Subscriber Profiles and Methods of Operating the Same
Examiner	:	Farzana E. Hossain
Art Unit	:	2623

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.131

Sir:

We, John Zimmerman, Lalitha Agnihotri, and Radu Jasinschi declare, depose and state:

1. We are inventor of all the claims (1-42) of the above-identified patent application.

2. We certify that due diligence was exercised in having a patent application prepared and filed as evidenced by the following:

On or about May 26, 2000, we concluded our investigations and studies on the systems for monitoring broadcast content and generating modification signals as a function of subscriber profiles and on the methods of operating such systems.

On May 26, 2000, we prepared a written description of our invention.

An Invention Disclosure form was prepared, and we executed the Invention Disclosure form on June 19, 2000 (see page 3 of the Invention Disclosure form for the

signatures of all the named inventors).

The executed Invention Disclosure form with our written description attached thereto was received by the Research Department of assignee Philips Electronics North America Corporation on or about June 22, 2000, as evidenced by the "W.B. Sherwood" date stamp which appears on the top right-hand corner of the first page of the executed Invention Disclosure form. A copy of the Invention Disclosure form and our written disclosure of May 26, 2000 is attached herein as **Exhibit A.**

As evidenced by items 1 and 2 above and the attached **Exhibit A**, it is clearly shown that our date of invention is at least as early as May 26, 2000, and that our invention antedates the Schaefer, et al. reference (U.S. Serial No. 09/798,583, filed March 2, 2001) along with due diligence exercised on our behalf prior to filing.

We declare and certify by our signatures below that all the statements made above of our own knowledge are true, and all statements made on information and belief are believed to be true. We are aware that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. § 1001) and may jeopardize the validity of the application or any patents issuing thereon.

John Zimmerman 5/26/06
Date

Lalitha Agnihotri Date

Radu Jasinschi Date

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John Zimmerman Date

Lalitha Agnihotri Date May 26, 2006

Radu Jasinschi Date

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John Zimmerman Date

Lalitha Agnihotri Date

Radu Jasinschi 05-24-2006
Date

EXHIBIT A

[illegible]

NLR EAR99 [illegible]

EXPORT CONTROL NUMBER (ECCN) ECO INITIALS

(15)

JUN 22 2000

FOR LPD USE ONLY

W.B. SHERWOOD

PHILIPS ELECTRONICS NORTH AMERICA CORPORATION

DISCLOSURE OF INVENTION

THIS DESCRIPTION SHOULD BE SUPPLEMENTED BY ATTACHING COPIES OF RELEVANT DOCUMENTS, SUCH AS PUBLISHED ARTICLES OR PATENTS, PRODUCT BROCHURES, ENGINEERING NOTEBOOK PAGES AND DRAWINGS.

DESCRIPTIVE TITLE OF THE INVENTION: Method for detecting and alerting users about significant events

1. INVENTOR #1: John Zimmerman
Philips Research, Briarcliff
914-945-6877, john.zimmerman@philips.com
Jim Schmidt, Nick Mankovich

INVENTOR #2 Lalitha Agnihotri
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Nick Mankovich

INVENTOR #3: Radu Jasinschi
Philips Research, Briarcliff
JUN 00 10: 19 914-945-6476, radu.jasinschi@philips.com
Nick Mankovich

2. PRIMARY CONTACT
If more than one inventor is named above, who will have the primary responsibilities for communicating with Philips Intellectual Property Department with respect to technical information about the invention and usage of the invention?

Inventor Name: John Zimmerman

3. PRESENT STAGE OF THE INVENTION
Idea X Research Development Manufacture

BK JUN 29 2000

4. GOVERNMENT CONTRACT INVENTION
Was the invention made under a government contract? Yes (No)

5. PRESENT STATE OF THE ART
Briefly describe the closest already-known technology that relates to the invention. This would include, for example, already existing products, methods or compositions which are known to you personally or through descriptions in publications.

I know of nothing like this invention

(ADD LINES AS NECESSARY, IF COMPLETING ON COMPUTER, OR ATTACH ADDITIONAL PAGES)

6. ADVANCEMENT IN STATE OF THE ART
Briefly describe the unique advancement achieved by the invention. This may be done, for example, by describing a problem with the prior art that is solved or specific objects that are achieved by the invention.

Currently, when users watch prerecorded material on a hard disk recorder, VCR or DVD, or when they use their TV to listen to music or play video games, they lose their connection to the live world of television. If a significant event happens and is announced on TV, these users will never know.

(ADD LINES AS NECESSARY, IF COMPLETING ON COMPUTER, OR ATTACH ADDITIONAL PAGES)

7. HOW ACHIEVED
Briefly describe the invention and how it achieves the advancement described in paragraph 6.

The invention uses two main methods for determining if a significant event has happened.
1. It looks to see if several channels are carrying the same information when it expects these channels to be displaying distinctly different shows. This is a clear indication that a significant event has happened.
2. It monitors a single channel for indications that a significant event has happened, often indicated by an emergency broadcast tone or the preempting of the regularly scheduled broadcast.

(ADD LINES AS NECESSARY, IF COMPLETING ON COMPUTER, OR ATTACH ADDITIONAL PAGES)

8. DISCLOSURE OUTSIDE OF PHILIPS
If the invention has been or will be disclosed to anyone other than a Philips' employee, describe to whom (person / company), when and where.

9. INVENTOR #1: _____ 6/19/2000
Signature Date

INVENTOR #2: _____ 6/19/2000
Signature Date

INVENTOR #3: _____ 6/19/2000
Signature Date

Method for detecting and alerting users about significant events

John Zimmerman, Radu Jasinschi, Lalitha Agnihotri
Philips Research
May 26, 2000

Background

One of the most powerful aspects of television as a communication medium is that it can deliver unexpected events live into homes around the world. Some clear examples of this are:

- Space Shuttle Challenger Explosion
- OJ Simpson Police Chase
- Tanks attacking student protesters in Tiennamen Square
- Columbine High School Shooting
- San Francisco Earthquake
- Local weather (tornadoes, hurricanes, floods, snow storms...)

Traditionally in America local channels affiliated with one of the national broadcasters have broadcast these live events. In fact, as part of their agreement with the FCC for use of spectrum, local broadcasters are required to provide news to the local community. This agreement was the backbone of the emergency broadcast system.

Today this access to breaking news on TV is less effective. The arrival of cable and satellite television allows people to watch channels with no connection to the local area. VCRs, DVDs, video games, and Hard disk recorders allow people to have their TV on with no connection to any live information. As the diversity of choice of what you can do or watch on your TV increases, the connection to breaking, live news diminishes.

Idea

Using two techniques a TV, TV device, or TV service can monitor the following sources to see if a significant event has occurred.

Local TV broadcasts
Local radio broadcasts
National news TV channels
National news Radio Stations

The system monitors these data services in the following ways:

1. The system checks to see if several channels are broadcasting the same information (see patent disclosure "A system for detecting similar events via TV, radio and the internet"). *When significant local and national events take place, many channels will often pickup and carry the same story. If this is detected, it is one way of determining if a significant event has taken place.*

2. The system checks within a single channel for indications that a significant event is being broadcast. The system uses the following methods to determine the probability that a significant event has occurred.

Method 1
Monitors audio of local channels for emergency broadcast tone. *In a local emergency, broadcasters often play this tone before important information is transmitted.*

Method 2
Monitor show for a "ticker" at the bottom of the screen. A ticker is an area where scrolling text often appears. Broadcasters use this as a method of passing on important information without preempting the currently broadcast show. *Examples include thunderstorm warnings, tornado watch, etc.*

Method 3
Monitor transcript of a "ticker" for words such as Warning, Emergency, Danger, Disaster, etc.

Method 4
Convert broadcast audio to text and monitor for keywords such as "Warning", "Emergency", "Danger", "Disaster", etc. *This can help determine if a suspected preempted show is important enough to interrupt viewers.*

Method 5
Monitor closed caption or other text services for words such as "Warning", "Emergency", "Danger", "Disaster", etc. *This can help determine if a suspected preempted show is important enough to interrupt viewers.*

Method 6
Monitor for absence of closed captioning or other text services in content that usually has text. *Currently closed captioning is only available for either recorded programs or planned live broadcasts such as scheduled news show and sporting events. When a breaking news story preempts a regularly scheduled shows, the closed caption data is usually not available..*

Method 7
Monitor video, audio, and transcript for a high rate of content repetition using the same methods outlined in patent disclosure "A system for detecting similar events via TV, radio and the internet". *When important events happen, commentators restate the situation frequently to bring viewers who are just tuning up to speed.*

Method 8
Monitor the format of the show and check to see if it matches the expected format for either the show listed in the EPG or for the show previously broadcast on this day and time. Checking this information can help determine if a show has been preempted. Preempting often indicates a significant event. The format includes but is not limited to the following:

- Time spacing pattern commercials appearing within the program. *When important events happen, the commercial breaks often decrease or are eliminated.*
- Super-histogram. The super-histogram is a chart of color information within a show. Most shows have a distinctive look that creates a unique super-histogram. The system can also check to see if the current super-histogram matches super-histograms of other significant events. (See filing PHA 23463)
- Cut rate. Most shows have a fairly consistent cut rate or pattern of edits throughout the show. Noticing a change, especially a large reduction in the cuts can help determine if a show has been preempted.